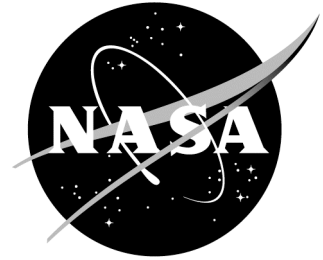


# NewsRelease

National Aeronautics and  
Space Administration

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## **Synthetic Vision technologies take off at local runways**

A series of test flights will bring NASA researchers one step closer to preventing the most fatal aviation accidents.

A dozen private pilots are flying NASA's specially equipped Cessna 206 aircraft to compare several Synthetic Vision System (SVS) cockpit displays in real-world environments. The advanced cockpit technology will offer pilots a clear three-dimensional picture of the terrain outside the aircraft even in the worst weather or darkest night conditions.

Researchers expect to accumulate nearly 90 hours during test flights at Newport News – Williamsburg International and Roanoke Regional Airports. These results will confirm and extend already-completed ground-based testing.

"Simulator tests could tell us only so much. Test flights give us the full motion effect, and are our first true look at Low Visibility – Loss of Control (LVLOC) accident prevention," said Lou Glaab, leader of the Synthetic Vision Systems General Aviation (SVS-GA) element at NASA's Langley Research Center in Hampton, Va.

Because limited visibility is one of the greatest contributors in fatal aviation crashes, NASA's Aviation Safety Program (AvSP), based at Langley Research Center, is developing SVS technologies for existing and future aircraft.

"Synthetic Vision System technology is the true revolution in general aviation aircraft instrumentation. SVS can really achieve substantial improvements in safety and operational performance," said Glaab.

Pilots wear restrictive-vision hoods and fly in hazardous weather conditions during the test flights. Because of their own limited visibility, pilots rely on the SVS cockpit displays for a clear electronic view of what is outside their window. During the tests, researchers will compare the flat terrain in Newport News to the hilly terrain in Roanoke, Va., to establish the most effective resolutions and texturing concepts for SVS displays.

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NASA researchers hope to use this synthetic vision technology to promote safety in general aviation aircraft, as well as in commercial airliners.

The Synthetic Vision Systems General Aviation (SVS-GA) element is part of AvSP. AvSP is a partnership with the Federal Aviation Administration, the Department of Defense, aircraft manufacturers, airlines and universities. This partnership supports a national effort to reduce aviation accident fatalities by 80 percent by 2010.

Researchers at four NASA field installations are working with the FAA and industry to develop advanced, affordable technologies to make flying safer: Langley; Ames Research Center at Moffett Field, Calif.; Dryden Flight Research Center in Edwards, Calif.; and Glenn Research Center in Cleveland, Ohio.

For more information on the NASA Aviation Safety Program, visit the Internet at <http://avsp.larc.nasa.gov>

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**The Cessna 206 and its NASA researchers will be available for pictures and interviews from 12:45-3 p.m. Thursday, August 22, at Piedmont Hawthorne Aviation on Waypoint Drive at the Roanoke Regional Airport. For more information call Kathy Barnstorff at 757 344-8511 or Jeff Caplan at 757 593-3478.**